

Title (en)

METHOD AND EQUIPMENT FOR SINTERING POROUS GLASS BASE MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUM SINTERN VON PORÖSEM GLASBASISMATERIAL

Title (fr)

PROCEDE ET EQUIPEMENT DE FRITTAGE DE MATERIAU DE BASE DE VERRE POREUX

Publication

EP 1736447 A4 20110713 (EN)

Application

EP 05720194 A 20050307

Priority

- JP 2005003922 W 20050307
- JP 2004078168 A 20040318

Abstract (en)

[origin: EP1736447A1] There are provided a sintering method and a sintering apparatus of a porous glass base material for sintering a porous glass base material to be dehydrated and vitrified into a transparent glass without causing core displacement and cross-sectional shape deformation. In detail, an aspect of the present invention is a sintering method of a porous glass base material for sintering a rod-like porous glass base material by hanging and moving the rod-like porous glass base material through a heating furnace. Here, the porous glass base material is lowered into a heating furnace heated to a sintering temperature, and after every part of the porous glass base material is moved through a preheated region extending from an upper edge of an insulating member to an upper edge of a heater in a heating furnace body in 4.5 hours or longer, the porous glass base material is sintered by the heater to be vitrified into a transparent glass.

IPC 8 full level

C03B 37/012 (2006.01); **C03B 37/014** (2006.01); **C03B 8/04** (2006.01)

CPC (source: EP KR US)

C03B 37/012 (2013.01 - KR); **C03B 37/01446** (2013.01 - EP US); **C03B 37/0146** (2013.01 - EP US)

Citation (search report)

- [X] US 6442978 B1 20020903 - KAMIO TAKESHI [JP], et al
- [X] JP 2002104830 A 20020410 - SUMITOMO ELECTRIC INDUSTRIES
- [X] JP 2000256020 A 20000919 - SHINETSU CHEMICAL CO
- [A] JP 2000264649 A 20000926 - SHINETSU CHEMICAL CO
- See also references of WO 2005090249A1

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 1736447 A1 20061227; **EP 1736447 A4 20110713**; **EP 1736447 B1 20190220**; CN 100586883 C 20100203; CN 1934040 A 20070321; JP 2005263557 A 20050929; KR 101169470 B1 20120727; KR 20050093707 A 20050923; TW 200533614 A 20051016; US 2007193306 A1 20070823; WO 2005090249 A1 20050929

DOCDB simple family (application)

EP 05720194 A 20050307; CN 200580008548 A 20050307; JP 2004078168 A 20040318; JP 2005003922 W 20050307; KR 20050003783 A 20050114; TW 94108242 A 20050317; US 59326805 A 20050307